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| **Semester** | III |
| **Paper Number** | |
| **No. of credits** | 5 + 1 |
| **Paper Title** | **CC-9:EducationalTechnology** |
| **Theory/ Composite** | Composite |
| **No. of periods assigned perweek** | 5 Theoryand1Practicum |
| **Course descriptive/ objective** | Thiscourse isdesignedto make the students aware abouttheadvancement of technologyanditsapplicationinthedifferentfieldofeducationviz.Teaching and learning, evaluation, administration, development of course etc.<br><br>Itisexpectedthataftercompletionofthecoursethe studentswillbeableto:<br><br>• *Useinternettechnologiesefficientlytoaccessremoteinformation, communicate and collaborate with others*<br>• *Developskillsinusingvariousweb2.0ande-learning tools*<br>• *definetheconceptofEducationalTechnology*<br>• *Classifythemodelsofeducationaltechnologies*<br>• *Explaintheemergingtrendsandroleofeducationaltechnologyin an instructional environment;*<br>• *Discusstheapplicationofeducationaltechnologyineducation,in general and in the teaching-learning process in particular*<br>• *Applythee-learningapproachesofeducationaltechnologyfor learning.*<br>• *Discusstheimplicationsofvarioustheoriesandprinciplesof learning while teaching and training with technology*<br>• *Definelearningfromtheviewpointofdifferentschoolsofthoughts*<br>• *Examinetheimplicationsofconstructivisminteaching-learning process*<br>• *CreateEportfolios,onlineandofflineassessmenttoolsin education*<br>• *UseICTinimprovingeducationaladministration* |
| **Syllabus** | **Module1:(30 marks)**<br>**Unit-I:BasicsofEducationalTechnology(ET)**<br>• InformationTechnology,CommunicationTechnology&Information andCommunicationTechnology(ICT)andInstructionalTechnology |

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| | • Applications of Educational Technology in formal, non-formal (Open and Distance Learning)<br>• Informal and Inclusive Education Systems<br>**Unit-II:PsychologicalTheoriesandInstructional Design**<br>• Behaviourist, Cognitive and Constructivist Theories and their implications to Instructional Design: (Skinner, Piaget, Ausubel, Bruner, Vygotsky)<br>• Relationship between Learning Theories and Instructional Strategies (for large and small groups, formal and non-formal groups)<br>**Unit-III:DifferentModelsofEducational Technology**<br>• Systems Approach to Instructional Design<br>• Models of Development of Instructional Design (ADDIE, ASSURE, Dick and Carey Model Mason's)<br>• Gagne's Nine Events of Instruction and Five E's of Constructivism<br>• Nine Elements of Constructivist Instructional Design<br>**Unit-IV:ApplicationofComputersin Education**<br>• CAI, CAL, CBT, CML, Concept, Process of preparing ODLM,<br>• Concept of e learning<br>• Approaches to e-learning (Offline, Online, Synchronous, Asynchronous, Blended learning, mobile learning)<br><br>**Module2:(30 marks)**<br>**Unit-V:EmergingTrendsine-learning-1**<br>• Social learning: concept, use of web 2.0 tools for learning, social networking sites, blogs, chats, video conferencing, discussion forum<br>• Open Education Resources (Creative Common, Massive Open Online Courses<br>• Concept and application), E-Inclusion - Concept of E-Inclusion, Learning Management System, Mobile learning<br>**Unit-VI:EmergingTrendsine-learning-2**<br>• Application of Assistive technology in E-learning<br>• Quality of E-Learning-Measuring quality of system: Information, System, Service<br>• User Satisfaction and Net Benefits (D&M IS Success Model, 2003), Ethical Issues for E-Learner and E-Teacher -Teaching, Learning and Research<br>**Unit-VII:ApplicationofEducational Technology**<br>• Use of ICT in Evaluation, Administration and Research: E portfolios, ICT for Research -Online Repositories and Online Libraries, Online and Offline assessment tools (Online survey tools or test generators)– Concept and Development.<br>**Unit-VIII:Someadvanceissuesrelatedto ICT:** |

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| | • Multimedia:meaning,types,advantagesandevaluationofmultimedia resources<br>• OpenEducationalResources:meaningandimportance,variousOERs initiatives<br>• Digitalbehaviourandcriticalissues:digitaletiquettes,intellectual copyright, internet safety, internet addiction<br>• Government plans/policies and initiatives: National Policy on Information and Communication Technology (ICT) in School Education(2012),NationalMissiononEducationthroughInformation and Communication Technology (ICT), ICT @ School etc. |
| **Mode of Transaction** | Lecture, Discussion, CaseStudy, Experiments, Problem solving, Film Show, Report, MOOC |
| **Practicum** | **Anyone:**<br>1. CompleteanyfreeMOOCcoursefromSWAYAM/equivalent platform and write a report on the educational implications<br>2. Prepare a critical report on the various ICTs used for education in Chitrabani,EMMRC,Kolkataoranyotherreputedandrecognizedinstitute of education providing multimedia education<br>3. Prepare a self-instructional material on the use of various ICTs in the teachingofaparticulartopicinaparticulardisciplineinthesecondaryor higher secondary level of a school |
| **Readings** | • Anderson,T.(2004).Thetheoryandpracticeofonlinelearning. Edmonton, Canada: AU Press, Athabasca University.<br>• Beetham,H.,&Sharpe,R.(2007).RethinkingPedagogyforaDigital Age. New York, USA: Routledge Publication.<br>• BharihokDeepak.(2000).FundamentalsofInformationTechnology. Pentagon Press: New Delhi<br>• Burnett,C.,G.Merchant,andB.Parry,eds.2016.Literacy,Mediaand Technology: Past, Present and Future. London: Bloomsbury<br>• Bhushan,A.andAhuja,M.(1992)EducationalTechnology -Theory and Practice in Teaching Learning Process. MT: Vivek Prakshan.<br>• Clarke,A.(2008).E-LearningSkills.NewYork,USA:Palgrave Macmillan Publication.<br>• Collis,B.(1996).Tele-Learning:FromTelevisiontotheWorldWide Web and Beyond. JALN.<br>• COL (2005). Creating Learning Materials for Open and Distance Learning: A Handbook for Authors and Instructional Designers. Commonwealth of Learning available at http://oasis.col.org/bitstream/handle/11599/43/odlinstdesignHB.pdf?sequence=1&isAllowed=y<br>• Conrad,Keri(2001).InstructionalDesignforWebbasedTraining. HRD Press<br>• CrumlishChristian(1999).TheInternetNoExperienceRequired.BPB Publications: New Delhi<br>• Evant,M:The InternationalEncyclopediaofEducationalTechnology. |

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| | • Hooker M (2009) Concept Note: The Use of ICT in Teacher Professional Development, Accessed on 16th January 2016 fromhttp://www.gesci.org/old/files/docman/TPD_Workshop-Concept_Note.doc<br>• EllingtonH,Percival.F&Race.P(2005).HandbookofEducational Technology, Third Edition, London: Kogan Page Ltd.<br>• Ge, X., Ifenthaler, D., & Spector, J. M. (Eds.). (2015). Emerging technologiesforSTEAMeducation:FullSTEAMahead. Springer.<br>• Harasim,L.(2012).Learningtheoryandonlinetechnologies.New York, USA: Routledge Publication.<br>• Kulkarni,S.S.(1986).IntroductiontoEducationalTechnology,New Delhi: Oxford & IBH publishing Co.<br>• Kumar,K.L.(1996).EducationalTechnology, NewDelhi:NewAge International.<br>• Leithwood,K.,&Mcadie,P.(2006).Teachingfordeepunderstanding. California, USA: Corwin Press, Sage Publication.<br>• Levinson,M.(2010).FromfeartoFacebook:oneschool'sjourney. International Society for Technology in Education.<br>• Loveless,A.,&Ellis,V.(2001).ICT,PedagogyandtheCurriculum. New York, USA: Routledge Publication.<br>• Maier,P.,Barnett,L.Warren,A.,Brunner,D.(1998).Using Technology in Teaching and Learning. London: Kogan.<br>• MichaelSpector,J.(2014).FoundationsofEducationalTechnology. New York, USA: Routledge Publication.<br>• Mirabito,MichaelM.A.(1994).NewCommunicationTechnologies, Boston: Focal Press.<br>• Mohanty,(1992).EducationalTechnology',Delhi:DeepandDeep Publication.<br>• Naidoo,Vis(2003):ICTinEducationPolicy:ReflectingonKey Issues, COL, Vancouver; Canada. |
| Evaluation | Practicum:20Marks<br>Continuous Internal Assessment: 20 marks<br>End-SemesterTheoryExamination:60marks |
| Paper Structure for End Semester | **FullMarks:**60 **Time:**3Hours<br>**CommonInstructions:**<br>• Answers should be based on critical reflection (knowledge, comprehension,application,analysis,synthesisandevaluation)<br>• Candidatesarerequiredtogivetheiranswersintheirownwordsasfar as practicable<br>**GroupA(FromModule1)**<br>**I.** **CriticalEssay:**Answer**anytwo**questionsoutoffourquestions(2 x 10 = 20)<br>**II.** **CriticalShortNotes:**Answer**anytwo**questionsoutoffour questions (2 x 5 =10)<br>**GroupB(FromModule2)**<br>**III.** **CriticalEssay:**Answer**anytwo**questionsoutoffourquestions(2 x 10 = 20) |

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| | **IV.** **CriticalShortNotes:**Answer**anytwo**questionsoutoffour questions (2 x 5 = 10) |